

REMARKS/ARGUMENTS

In response to the March 30, 2005 office action, Applicants respectfully request reexamination of the application as amended. Although the specification has been amended to conform to the invention as now claimed, no new matter is believed to have been introduced by the foregoing amendments to either the specification or the claims as currently presented. Applicants remarks as follows are numbered to correspond to the numbered paragraphs in the March 30, 2005 office action.

1-2. Claim 1 has been amended to recite a substrate and as such should overcome the Examiner's rejection based on 35 U.S.C. 112. All of the remaining claims now in the application are directly or indirectly dependent on Claim 1.

3-4. Applicants acknowledge that 35 U.S.C. Sections 102 and 103(a) are valid bases for rejections under the appropriate conditions. However, Applicants are convinced that the subject matter of the remaining claims as amended are sufficiently different from the prior art so as to be patentable.

5. Claims 2, 20 and 24 have been canceled, with the limitations of Claim 2 having been incorporated into Claim 1 and Claim 1 amended to include both the substrate and the reflectivity (to lasers) of the reflective layer.

6-17. Claims 24-27 have been canceled. Although Examiner's attention to detail in his discussion of these claims is sincerely appreciated, Applicants believe that further discussion of the Claims 24-27 and of the specific references cited by the Examiner in rejecting those claims is not now required.

18-20. Applicants respectfully request re-examination of the remaining claims as now amended, namely Claims 1, 3, 6, 8, 9, 11, 12, 18 and 19. Notwithstanding the Examiner's rejections under 35 U.S.C. 103(a) and based on the identified references of those claims before this amendment, in particular Claims 1 and 9 before amendment on the basis of Nakai et al. '772 in view of Ito et al. '049, all of those claims before amendment both on the basis of Nee '603 in view of Nakai et al. '772 and Ito et al. '049 and on the basis of Nee '603 in view of Nakai et al.

'772 and Ito et al. '049 combined with Dirks et al. EP 0064777, Watanabe et al. JP 08-291347 and Takagi et al. JP 07-301705.

In the first instance, Applicants fully recognize that it had long been known that silver and silver alloys can be used as reflective and partially reflective layers in optical media. In addition to the references cited by the Examiner, Applicants would note, for example, the references to Florczak et. al, '382 at Col. 2, lines 15-18, and to Holster et. al, '553, the latter being identified in the Supplemental Information Disclosure Statement (SIDS) filed with this response. Secondly, and as disclosed in Yanagimachi et. al JP 10-011799 and Miyashita et. al, et. JP 09-212915, also cited in the SIDS, it had long been known that certain metals added to silver, including such metals copper, titanium and manganese whether added alone or in combination, improved the performance of silver as a reflective layer in optical media. Thirdly, Applicants also believe it possible to take judicial notice of the long known fact that the transmissibility of light through silver and silver alloy layers, whether scattered as ambient light or collimated from a laser light source, increases as the thickness of the layer decreases, as has long been recognized by their uses as beam splitters in optical and photographic apparatus to control the percentages of light being transmitted or reflected according to the use of the apparatus, and their uses as "one way" mirrors and environmental structural glass again to control the percent and/or spectra of light transmitted. While in and of itself obvious to one skilled in the metallurgical art as applied to optics, at least Holster et. al, '553 directly imports that well known principle into optical media.

The additional prior art listed in the SIDS filed herewith supports Applicants' above stated contentions that in general it was well known, even before the particular prior art references as cited by the Examiner, that (a) a silver based alloy containing one or more of copper, titanium and manganese in an amount from 0.1 to 5 atm% in total (Yanagimachi et. al JP 10-011799, ¶0022), or in an amount not "not impairing its function" (Miyashita et. al, et. JP 09-212915, ¶0019) and (b) the thickness of layers of silver and silver alloys is determinative of the percentage of light reflected or transmitted (Holster et. al, '553 at Col. 7, lines 65-68 and the Journal of the Optical Society reference cited therein).

Notwithstanding that rare earths generally were known to add certain properties to silver alloys for various commercial uses, those properties in a general sense did not predict a successful result for the purpose claimed, which is amply demonstrated by the examples

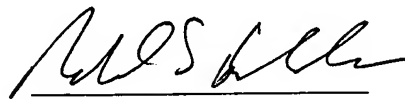
disclosed in the subject application. The surprising result as claimed by Applicants is that samarium, unlike the other rare earths, provided the appropriate benefits for use in reflective layers of optical media, but only if added in a very limited, specific range along with a limited, specific range of copper and even improved benefits with titanium and manganese in the limited ranges as claimed. For instance, examples C-5 through C-9 as disclosed in the application demonstrate that rare earth elements other than samarium in equivalent proportions fail the required tests, as do examples I-1 and I-2 containing no copper and examples I-6, I-7 and I-8 containing more samarium than claimed but still within the range suggested by the prior art. Applicants therefore are convinced that the prior art, whether of record or otherwise, does not disclose or suggest optical media with at least one reflective layer of desired reflectivity having the very specific compositional ranges as now claimed.

21-22. The additional art made of record by the Examiner but not relied upon has been noted, along with the helpful information for contacting the Examiner. If it will facilitate further examination of the application, the Examiner is encouraged to call the undersigned attorney. Otherwise and in view of the foregoing amendment and remarks, it is believed that the application is now in condition for allowance, and such action is respectfully requested.

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Respectfully submitted,



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